

*Dr. Yeats came to St. Luke's
At the an. Thomas respectful
appreciation*
A 8.

HISTORY

OF A

SEVERE CASE OF NEURALGIA,

COMMONLY CALLED

Tic Douloureux,

OCCUPYING THE NERVES OF THE RIGHT THIGH, LEG,
AND FOOT,

SUCCESSFULLY TREATED;

WITH

SOME OBSERVATIONS ON THAT COMPLAINT,

AND

ON ITS CAUSES, AS THEY VARY IN DIFFERENT INDIVIDUALS.

BY G. D. YEATS, M.D. F.R.S.

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THEIR ROYAL HIGHNESSES THE DUKE AND DUCHESS OF CUM-
BERLAND, TO THEIR GRACES THE DUKE AND DUCHESS
OF BEDFORD, AND ONE OF THE PHYSICIANS TO
THE ASYLUM FOR FEMALE ORPHANS.

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HISTORY,

&c.

OF all the ailments which occasionally afflict the human frame, there is none which has excited so much observation of late, and for which more varied remedies have been suggested, than that which is commonly called Tic Douloureux. It is a disease well calculated to excite the sincere sympathy of the physician, on account of the excruciating pain with which it torments the patient; and hence the great attention which has been paid to it by the profession to endeavour to discover a mode of treatment, if not curative, at least in some degree adapted to lessen the anguish of the sufferer. With a view of throwing my mite into the scale of so laudable an object, I give the following Case to the public, with such observations as have occurred to me on its symptoms and treatment.

Mrs. Y——, æt. 39, awoke on Thursday morning, March 7th, 1822, with a feeling of uneasiness on the outer ankle and a little up the calf of the right leg, as if she had the cramp, and also with a numbness on the great toe. The numbness is not felt except it be touched; and she describes the sensation from the application of the hand as if something was interposed between the hand and the skin: the sensation is a very unpleasant one. During the day the pain gradually increased and spread towards the middle of the leg, and the sensation of numbness extended from the toe across the instep increasing in width to about three inches above the ankle-bone, ending in a point there. The boundary-lines of this numbness are well defined; for, in moving the fingers over the foot, she immediately knows when those lines are passed. By the evening the pain had reached the knee, in a straight narrow line from the ankle, and pressure gave no pain except on that line. The whole of that night was passed in a good deal of pain.

Friday, March 8th, fourteen leeches were applied along the course of the pain of the leg; they did not produce the slightest re-

lief. By the evening of this day the pain had stretched up the thigh in the line of the sciatic nerve. On Thursday night she took of her own accord Pil. Hydrarg. gr. iv, followed up, on the next morning, by Seidlitz Salts: the same medicines were taken on Friday night and Saturday morning, and during the day a blister was applied to the ankle. The pain had now increased to considerable violence in the whole course of the nerves of the leg and thigh, with very short intermissions, succeeded by the most acute paroxysms. The constitution of the patient is full and succulent, with an easily excitable fibre, being what is called nervous.

As the secretions were evidently extremely unhealthy, some mercurial medicine, with the Pulv. Antimon. and Extract. Hyoscyami, was given each night, the movements by the bowels being at the same time attended to, up to the 12th, when the gums became a little tender, but without any the slightest benefit or relief from pain; the bowels were easily excited and very sensible, the mildest medicine not only acting, but producing pain in the operation; their nervous coat had evidently acquired a great morbid sensibility, as was

the case with almost all the sentient extremities of the nerves.

On Thursday, March 14th, Sir Henry Halford, my neighbour, was good enough to give me his assistance at my request, and he agreed with me that the disease was a pure affection of the nerves of the leg and thigh, unaccompanied by any morbid state of the muscular and tendinous parts: the limb was moved with perfect freedom and ease, but she could not lie except in one position, on the left side with the knee bent, and she could not sit at all, pressure instantly producing great pain; so that the only relief by position was either lying recumbent in the way described, or walking about the room; and if any pressure was at all made upon any portion of the nerves from the hip to the ankle, even with the finger, a paroxysm of violent pain was the immediate consequence through their whole course; the pain, however severe, was not attended at any time by any muscular movement or discoloration of the limb: blowing the nose, sneezing, or coughing, caused pain through the whole line of the nerves. The pulse was not hurried by any febrile or other ac-

tion even under the acutest suffering ; most commonly it was very slow, from 56 to 62 beats in a minute, and soft, being much below the usual celerity of her ordinary health ; so that it had become slower under this morbid condition of her nervous system. It was agreed that the bowels should be mildly attended to in the kind of opening medicine that might be required, and that the pain should be kept under by narcotics : a draught was accordingly prescribed, with the two-fold object of determining to the surface and of soothing the nerves.

R. Liquor. Ammon. acetat. fʒss.

Misturæ Camph. fʒj.

Syrupi Papav. fʒss.

Liquor. Antimon. Tart. m. xiv.

M. ft. haust. meridie sumend. et hora somni repetendus.

Little or no relief was obtained ; the only effect produced was a sensation of more general warmth, which made her feelings more agreeable ; not the slightest perspiration followed, and indeed through the whole course of the disease not the smallest moisture could be produced upon the skin, and at times she complained of a disagreeable dry heat ; and notwithstanding narcotics were given in powerful doses, such as at one time Extract. Conii

gr. v, Extract. Hyoscyami gr. iij, in two pills, sextis horis ; at another, Extract. Conii, Pulv. Ipecac. Comp. ana gr. v, quartis vel sextis horis, only a very temporary truce was obtained from excessive distress, the slightest pressure upon the nerve immediately producing very acute suffering ; and at no time was there a total absence of pain, as she was constantly teased by a weary aching uneasiness, with a sense of something flowing from the ankle to the knee and back again, like the flux and reflux of the waves, accompanied by repeated paroxysms of violent pain all along the limb in the course of the nerves ; and it is but justice to bear witness to the exemplary patience and resignation with which these great sufferings were borne. The sensorium was not at any time in the least disturbed by giddiness, pain, or uneasiness there ; and the narcotics produced not the slightest sensible disorder in its functions, although they palled the stomach, particularly the Conium and Hyoscyamus.

Notwithstanding the great calmness of the pulse, it was impossible to divest one's self of the idea that there was no local inflammation in the coat of the nerve ; accordingly Mr. Brodie was good enough to open a vein

(the vena saphena) of the leg, just above the inner ankle: very little blood was obtained, although the leg was immersed in hot water; the veins were found upon examination by Mr. Brodie to be empty. The patient, however, thought she was relieved thereby, and she certainly slept better that night with the same quantity of an opiate as was previously taken; but still after this there were frightful returns of pain in the limb; and as the period of the menses was now approaching, there was superadded a sense of distress and fulness in the bas ventre; they occurred on the 20th of March, and lasted three days, but not in the usual quantity. Previous to their appearance, and subsequent to their departure, she was cupped in the loins and on the thigh, on account of the great increased violence of the pain of the limb and of a sensation of distressing fulness about the region of the uterus: from ten to twelve ounces were taken away each time, but certainly without any great advantage; and the last cupping, which was on the thigh, appeared to be evidently detrimental, the general system being much reduced and rendered more nervous. A day or two after the cupping a blister was applied to the loins.

but such was the excessive state of sensibility of the nerves, that after the blister was withdrawn, and during the progress of the healing of the blistered part, it caused great distress by the pain it produced; the same distress was felt from the bites of the leeches, the wounds of the scarifications and of the lancet, all to a degree which I had never witnessed from similar applications in other instances where these remedies were required—a clear proof to what a morbid degree of sensibility the nervous system had arrived. External applications were equally of no avail, whether in the form of cold lotion, or of warm fomentations with decoction of poppy-heads; all attempts of the kind increased the pain, so that the limb was left with only a light covering: but in the progress of the complaint considerable variation took place in the morbid sensations, for at one time the cool part of the bed, at another the warm, would feel comfortable; in the same way, it felt soothing to have the leg covered with flannel, and again, it was more easy when exposed to the air: but the relief, however obtained, was of very short duration, there being a constant harassing painful restlessness, firmly combated, I must

say, by the powers of her mind, in great self-possession, by reading, chiefly the animated and attractive descriptions of some popular modern novels.

About this time, March 20th, it was suggested to make trial of the Colchicum, from the particular effect it sometimes has upon the nervous system; accordingly twenty drops of the wine was given in an aromatic draught three times a day, but it irritated the bowels without producing any good whatsoever. Soon after this, on March 24th, the bark was given under the following formula,

R. Decoct. Cinchonæ f3x.

Extract. ejusdem mollis gr. xv.

Tinct. Cinchonæ Comp. f3j.

Tinct. Opii gtt. v.

M. ft. haust. quartâ quâque horâ sumend.

and continued up to April 3d with decided relief to the pain, and by the acquirement of more comfortable feelings of general health; but still the pain and distress in the limb were at times so excessive, that it was necessary to give large doses of laudanum, such as twenty drops every six hours, making eighty drops in the twenty-four hours; and

subsequently, on the 1st and 2d of April, she took from a hundred and twenty to a hundred and sixty drops of laudanum, although, in her ordinary health, five and ten drops act as a sufficient soporific for many hours. At half past eight, P. M. April 2d, she had a throbbing pulse, not quick, with the same sensation at the heart; they were composed by the following draught:—

R. Aquæ Carui fʒix.
 Tinct. Opii m. xx.
 Sp. Ammon. Aromat. fʒj.
 Extract. Cinchon. mollis ʒj.
 M. ft. haust.

April 3d.—Awoke about four, A. M. with great aching in the limb, having slept from eleven o'clock till that time by the assistance of the above draught, containing forty drops of laudanum; the draught was repeated with thirty drops of the laudanum, when she soon fell asleep again, and slept about three hours, when she awoke with the pain in the limb as usual, all along the course of the nerve, from the ankle to the hip.

This very painful malady had now lasted about a month without any rational expectation of recovery, except what might be hoped

for from time ; perhaps, too, protracted to a lengthened period, to be one likewise of great suffering, and without any considerable relief having been acquired, except the temporary truce to the violence of the pain obtained by repeated opiates, sometimes in large doses. This afforded but a melancholy prospect to herself, deprived of all her comforts in consequence of almost continual pain : it may naturally be supposed too, that in a case so extremely interesting to myself, my own feelings were not a little harassed ; and I feel obliged to Sir Henry Halford for the comfort and support which he afforded on this trying occasion. The common routine of practice had been pursued with its various modifications without dispersing those dark and ominous clouds which obscured our progress to a successful termination of the complaint. I therefore reviewed in my mind the whole assemblage of symptoms, connected them with the general nervous excitability of the constitution of the patient, and called to my recollection the effects of the different means which had been adopted from the commencement of the malady. Steel, in some of its preparations, presented itself to me ; and here again I felt embarrassed, from

the fact, that on a former occasion of some dyspeptic complaint, I had prescribed steel for Mrs. Y., I believe it was the sulphat, in the form of Griffith's mixture ; but it disagreed by irritating the system. Still I could not recur to any medicine better adapted than this to overcome that mobility of the system, connected with nervous debility, so clearly manifest in this case.

A justly celebrated physician of this metropolis has suffered for several years under the tic douloureux of the face in its most painful shape ; in common with his other professional friends, I occasionally called upon him, and painfully witnessed the complete inefficacy of every known possible means, medical and surgical, which could be devised for his relief. I reviewed the cases of patients I had myself attended and I looked into different authors who had written upon the subject, and as steel had suggested itself to me as the remedy best adapted to the case which is the subject of the present publication, I recollected, that when I was turning in my mind the case of the physician alluded to, I had then read a pamphlet, published by Mr. Hutchinson, recommending a particular pre-

paration of steel in large doses ; I determined to take advantage of that suggestion, by giving it to Mrs. Y. Accordingly, I proposed to Sir Henry Halford, that we should give this preparation of iron (Subcarbonas Ferri) in the quantity suggested by Mr. Hutchinson. The patient therefore, on the 3d of April, at eleven, A. M. took, in some treacle, ʒfs of the subcarbonat of iron; but fearing lest the quantity should affect the stomach, the following grateful draught was directed to be taken after each dose :

R. Infus. Caryophyl. fʒx.

Sp. Ammon. Aromat. fʒfs.

M. ft. haust.

About one o'clock, being in much pain, she took twenty drops of laudanum.

Her dinner was eaten to-day with increased appetite. The steel was repeated at eight, P. M. At half past ten at night, the patient took twenty drops of laudanum, dreading that some uneasiness in the leg might arise to pain.

April 4th.—Slept till four o'clock this morning, when she awoke without uneasi-

ness in the limb ; but, as she felt it coming on, she took twenty drops of laudanum. At eight o'clock she awoke again without pain ; but soon after waking had a very sharp pain in the ankle ; she then took ℥ij of the sub-carbonat.—Bowels were moved four times yesterday, without any pain in them. The circumstance of the bowels being moved is mentioned without pain, because, up to this day, whenever the bowels were moved, by whatever means, however mild, a good deal of griping took place, even by those medicines which in her ordinary health produced no such effect, the villous coat of the intestines partaking largely of the general irritability of the nerves.

Half past eleven at night ; she has been freer from pain to-day than on any day since her illness ; the appetite is improved, and the thirst has considerably diminished ; the bowels have been moved moderately twice to-day ; the stools costive, and with the last there was a little griping ; the urine, which has been from the commencement of the complaint perfectly limpid, has assumed to-day a darker tinge ; has complained of palpitation to-day, and of a burning sen-

sation in both legs, and last night of a soreness over the scalp; Ferri Subcarbonat. $\mathfrak{z}\text{ij}$ were repeated at one o'clock to-day, and again at half past eight, P. M.; she complains of an indescribable restless uneasiness in the affected limb, with startings in it, but without pain, and a creeping coldness over the whole body.

R. Infusi Caryophyl. $\text{f}\mathfrak{z}\text{x}$.

Sp. Ammoniae Aromat. gtt. xv.

Tinct. Opii gtt. xx.

M. ft. haust. statim sumend.

April 6, Saturday morning.—Took yesterday morning $\mathfrak{z}\text{j}$ of the subcarbonat; the bowels were irritated during the day, and two scanty stools took place, and the pain of the limb was more troublesome than on the preceding day. Believing the largeness of the dose of steel had irritated the digestive organs, no dose of it was taken till the evening, when $\mathfrak{z}\text{fs}$ was given. The same general indescribable restlessness, with uneasiness in the limb, occurred again last night, and at one in the morning forty drops of laudanum were given, which soothed the system; and she slept from two till eight o'clock this morning, when she took a castor oil draught.

April 7th, Sunday morning.—Has had a good night, without any laudanum: the castor oil acted copiously on the bowels yesterday, and caused a good deal of griping in the evening, which made it necessary to give ten drops of laudanum twice, and only one dose of the steel (3fs) was taken yesterday.

April 8, Monday morning.—Has had a good night, sleeping from half past eleven till five o'clock; she took at bed-time ten drops of laudanum; passed the whole of yesterday tolerably free from pain, and took ʒj of the steel three times in the course of the day.

April 14th.—The steel has been continued since last report, in the quantity and repetition there stated; she has been tolerably free from pain, and has improved in every respect till last night, when she again complained a good deal, both of the local distress and of general irritability. These circumstances, however, received their explanation from her mentioning that she expected the period: the use of the steel was suspended, and as she was always in the habit of taking

some opening medicine at this time, to relieve the dysmenorrhœa which at times troubled her, the following draught was given:

R. Infusi Caryophyl. f3jfs.

Magnesiae Sulphat. 3jfs.

Tinct. Sennæ f3j.

M. ft. haust.

April 16.—The period came on the night before last; a good deal of pain was complained of in the leg yesterday, and also in the bas ventre, in the region of the uterus; this latter pain is usual with her at such times. Ten drops of laudanum were given yesterday morning twice, in a little warm water; at these times, formerly, the laudanum has been given in this way for the reasons already mentioned. Had a good night last night, but has complained of a great deal of pain in the leg this morning, and ten drops of laudanum were taken; adhuc perstant menses.

April 17.—Has passed a good night without laudanum; abierunt menses. The steel was now resumed; with a view, however, of making it sit as light as possible on the stomach, and also of giving a regular move-

ment to the duodenum and upper intestines, in order to obviate accumulation there, to which I attribute in some degree the general restlessness which has been so frequently troublesome ; I prescribed it in the following manner : Sumat pulverem sequentem bis terve quotidie ex paucis sacchari, superbibendo haustum infra præscriptum :

R. Pulv. Ferri Subcarb. ʒss.

—— Rad. Rhæi,

———— Zingiberis, ana gr. ij.

M. ft. pulv.

R. Infusi Caryophyl. fʒx.

Sp. Ammoniac Aromat. fʒss.

M. ft. haust.

The happiest effects followed this mode of exhibiting the steel ; no more laudanum was taken ; the pain began so far to subside, and the paroxysm not to be brought on by pressure, that she slept very well at night, she sat at table at her meals, and was able to resume her domestic functions, with only a reminiscence by some aching in the limb that she had had disease there.

The state of the pulse has only been mentioned once, because I scarcely, if ever, observed any variation in it, it being always

a slow, soft, small pulse, till she began to be freer from pain and to recover her health, when it became accelerated to seventy, and at times to eighty, approaching a feverish quickness, but without any other symptom whatever of such a condition, and without any uneasiness to herself. The bowels also maintained a more regular action without irritation, except occasionally, when they showed a disposition to be too much moved, the rhubarb was then reduced to gr. j: but I have several times remarked in the exhibition of rhubarb, that after it has been taken for a time in small doses, it appears to accumulate in the colon (although the bowels shall be moved once daily), and to cause griping with stools; and if you wish to go on with the rhubarb, from any cause for which you may have prescribed it, it is necessary to give some mildly opening medicine before the resumption of the rhubarb. This is a practical fact, with which experience has made me acquainted. The infusion produces much less of this effect than the powder; the reason is obvious.

From this period (April 17th) up to the third week in May, the complaint gradually

declined, and the steel was continued as already described, occasionally intermitting it for a day, and interposing the mildly opening draught: laudanum has not at all been taken, not even at the period, which occurred properly in every respect. The nights have been good; society has been enjoyed, both at home and abroad; and her usual habits, as previous to her illness, have been resumed without any inconvenience. She may, therefore, be said to be well, except that she feels at times a weariness in the limb, amounting occasionally to a tingling and an aching sensation in the nerve of the foot, chiefly about the ankle, where the complaint was at first troublesome, especially after taking a walk, but the act of walking causes no uneasiness. It is worthy of remark, that she has several times spontaneously expressed herself as not so comfortable when she has omitted the steel; saying, that she felt a support by taking it; and she still takes it, May 23d, though not so often as before*.

It appears to me to be undoubted, from a review of the case, that the patient is greatly

* As this sheet is now passing through the press, (June 13,) I am enabled to say that the patient is quite well, and has not taken any steel since the 7th.

indebted to the Subcarbonas Ferri for her release from this painful complaint, and it is of great importance in the consideration that the sensations of the patient are entirely in its favour. It seemed to have a direct and speedy effect upon the nerves in soothing them by its impression upon the stomach, notwithstanding the large dose in which it was given. Sydenham had a better opinion of it in substance than in any other form in hysteric diseases: “*Commodissime vero, aut ego fallor, in substantia exhibetur; atque ut nec observavi umquam ipse, nec fando accepi, eum ita sumtum cuivis nocuisse, ita certiore me fecit experientia multiplex, nudam chalybis substantiam et felicius et breviori temporis spatio curationem absolvere, quam si is quovis ex iis, qui vulgo ferantur, modo fuerit præparatus* *.”

With respect to the diet which was adopted, I have to remark, that a particular attention was paid to the quality and quantity of the food, that the digestive organs might labour as little as possible; and as one great proof, among others, that their powers were in a

* Thomæ Sydenham, M. D. Opera, Lugduni Bat. 1741, p. 404.

morbid state, neither flesh meat nor puddings could at first be borne with comfort on the stomach, as they felt heavy and oppressive, causing a throbbing at the heart, amounting at times to palpitation ; indeed I was two or three times uneasy at the peculiar kind of distress complained of at the heart, connected as it was with the very slow and low state of the pulse, notwithstanding the exhibition of stimulants ; I was fearful from the great general restlessness, that the same morbid condition of the nerves of the thigh and leg might attack the nerves of the heart ; the consequences would have been very unfortunate. It is worthy of remark that several times, upon giving a few drops of laudanum in a little water, a palpitation of the heart was induced, which was however allayed by Spiritus Ammon. Arom. in warm water.

The diet consisted of a cup of coffee with a bit of bread and a little butter for breakfast, a cup of broth as luncheon, for her dinner a poached egg upon a piece of toast, for which fish was occasionally substituted, with a glass of old Madeira wine in some warm water ; in the evening a cup of tea or coffee, with a

bit of toasted bread; and at night a biscuit, or a roasted potatoe, with a glass of Madeira wine. The quantity of solid food was thus restricted, and a great limitation was put upon the liquids, not taking more than a pint and a half in twenty-four hours, and every thing was taken warm. She certainly derived great benefit from the management of the digestive organs in this way: they were thus soothed into tranquillity, by not being oppressed by the irritating quality or quantity of the food. About a week after she began the steel, solid animal food was taken at dinner with comfort, still, however, attending to the quantity, as much as to the quality, for the appetite was now good.

A friend, as I am, to the gastric consideration of very many diseases, and to the advantages we derive from keeping the condition of the digestive organs in view, I do not recollect at any time more decisive good in any case than in this, by soothing and comforting the stomach in the way I have mentioned, and by giving regular movements, although they may not have also been evacuating ones, to the intestinal actions. I am quite sure this distinction is correct from repeated ob-

servations, for nothing irritates the digestive organs more, and through them the general system by languor, restlessness, and oppression of spirits, than a torpor of the upper intestines : care should always be taken under such circumstances especially that they move forward their contents to the great reservoir, the colon, although they be not immediately evacuated : indeed, I have often remarked that they should not be so frequently evacuated, although the movements should be going on above.

In some cases, particularly when the colon has acquired a considerable degree of irritability, a disposition to a greater and more permanent state of contractility than is natural of this intestine takes place ; it is of some consequence to attend to this. In such cases I have had no doubt that the soreness, which this condition of the colon produces to the touch, in the epigastric region, through which its great arch passes immediately under the stomach, has been considered a disease of the latter organ, and has been treated accordingly with injurious consequences, in like manner as the liver has been often said to be diseased, when the duodenum only has

been faulty in its action*. This morbid state of the colon giving rise to mistakes respecting stomach ailments, which did not exist, has, for some time, occupied my attention: a discrimination is much wanting on this point, and the diagnosis is often one of difficult attainment, but this is not the place for discussing the subject.

That particular state of the nerve, which has been commonly known by the name of the *tic douloureux*, has always been considered till very recently, as a disease peculiar to the second branch of the fifth pair of nerves, which issues in a bundle of nervous filaments from the suborbital foramen of the face; but a closer discrimination of disease, taught by the improvement of medical science, has pointed out very clearly that other nerves are liable to that morbid condition, attended with the same excruciating pain, as the afflicting disease of the nerves of the face. I have, indeed, no doubt, from a more extensive view of the subject, that the internal nerves, such as those of the thoracic

* See the author's observations on the duodenum in the 6th vol. of the Medical Transactions of the College.

and abdominal viscera, partake also of this painful morbid state, as well as those of the face, and of the upper and lower extremities, giving rise to the same distress and suffering in the sentient extremities distributed to these internal organs. This view of the subject is probably worth consideration in those violent internal pains, with a slow and weak pulse, not unfrequently occurring to every practitioner.

The precise condition of the nerve under this afflicting malady is still a matter of obscurity, and this is not a little increased by the indiscriminate manner in which the disease has been uniformly treated; no philosophical view has been able as yet to investigate satisfactorily the causes, which in some cases readily yield, while in others, they prove rebellious to any treatment, medical and surgical, which can be devised; and this is not owing to the deficiency of genius and talents which have been called into the field of inquiry. The veins of the affected leg in the present case were found empty, and by the observation of a surgeon upon whose accurate knowledge in such matters we may depend. Does this condition of the veins,

in a part under such excruciating pain, give any idea of the particular state of its nerves? The slow and feeble action of the heart too corresponds with this deficiency in the returning blood; it would seem that the arteries did not sufficiently propel their contents to the veins, and that this want of actual power depended upon the deficient energies of the nerves of the limb; if nerves possess action then, or if they are only the conductors of some influence from the sensorium, or from their ganglia, in the former state, there was a want of action, and in the latter, there was no transmission, or a less than natural, of this influence from the sensorium, or ganglion; hence the grateful effects of the stimulants, and ultimately the beneficial result of the steel, which is known above all other medicines to give a powerful energy to the system, for the pulse became quicker and stronger, as the disease was diminished. But how was the great pain produced? I am quite sure, that in all cases of great pain there is not necessarily great action: I am satisfied that absolute quiescence causes very considerable pain. Was this, then, the morbid condition of the nerves of the limb, connected with a powerless state

of the digestive organs? By these observations I by no means intend to deny that inflammation takes place in nerves: we know their investing membrane to be entwined with minute blood-vessels, a preternatural turgescence or an increased action of which, would undoubtedly produce painful disease; but, as far as I recollect, I never saw a case of this inflammatory kind, unless in the form of sciatica, which is a very distinct disease from the one I am now considering, and to be treated in a very different manner.

It is from a want of discrimination as to the cause, that such a variety of remedies have taken their rise, and also from the name of *tic douloureux*, which of itself conveys no precise meaning, being indiscriminately applied to almost every painful local affection of the nerves*: and as the disease is not a fatal one, being protracted, when not cured, to a lengthened period, opportunities, by dissection, have not been afforded to detect the condition of the morbid parts by ocular ex-

* A French lady, who laboured under the disease in her face, described the sensations in the paroxysm by the term *tiraillement*, from the painful feelings of dragging and pulling under which the parts suffered.

amination. The nerves too are so changeable in their expression of pain, if I may use the word, and their symptoms of diseased states so multifarious and contradictory, that an attempt at arrangement becomes extremely perplexing, and until we are better acquainted with the nature of the functions of the nervous system, we must be content with the facts as they arise in practice, without a pathological explanation entirely satisfactory. My professional reader, by calling to mind Sydenham's admirable account of hysteric complaints, and the description of nervous diseases, by Whytt and others, will at once acknowledge the truth of these observations. The nature, however, of nervous disorders is now much better understood than in the days of Sydenham, or more recently of Whytt, as what were then considered idiopathic diseases of the nerves, are now known to be only symptoms of other diseased organs irritating the nervous system.

It is from this deficiency of power to distinguish, that tic douloureux has been treated with so many remedies: tar, oxygenated muriat of potash, arsenic, mercury, bark, steel, belladonna, &c. remedies so very op-

posite in their nature and effects, and some so deleterious in their qualities, as to render it perfectly clear that the causes of the disease which they have been declared to cure, could not have been the same, although the prominent symptoms have worn the same aspect : but, very recently, juster discriminations have been made by Dr. Kerrison, Mr. Hutchinson, and Mr. Swan*. I was guided more by the precepts of the day, and by some preconceived notions, in the early treatment of the present case, than by any thing which was altogether satisfactory to my mind ; and the unexpectedly speedy relief from great pain, procured by the steel, awakened me to more diligent reflection on the subject.

* Case of four years, cured : tar used externally. Edinb. Journal, vol. x. p. 288.

Case of eight years, cured : oxygenated muriat of potash, internally given. Annals of Med. vol. v. p. 402.

Two cases, cured by salivation. Edinb. Journal, vol. iii. p. 272 ; vol. iv. p. 306.

Cases cured by arsenic. Edinb. Journal, vol. vi. p. 27 ; vol. vii. p. 299 ; no. lxxi. p. 241.

By bark. Edinb. Journal, no. 67, p. 229 ; Dr. Kerrison's Inaugural Treatise ; Mr. Swan on Local Affection of the Nerves.

By steel. Mr. Hutchinson's Pamphlet on Tic Douloureux.

By Belladonna. Mr. J. Bailey on Belladonna.

In searching for causes giving rise to local painful affections, we must not circumscribe our investigation within a narrow compass, otherwise the circumstance of locality will most infallibly lead us astray and divert our attention from detecting the cause in some more distant organ. It is clear that whatever greatly irritates a nerve, will produce a painful sensation at the sentient extremities, whether cutaneously or internally situated; and from the innumerable communications between the filaments of nerves, this painful sensation will be often greatly diffused, and it will be often such as entirely to obscure the seat of the irritation; and this effect will be the same, in whatever part of the nerve the irritation be situated.

Cases might be easily multiplied of the supreme control which the digestive organs have over the system, through the medium of the nerves, in the production of disease in varied forms, by their secretions becoming morbid. I may mention one among many, as it is very recent, and connected with the subject of the present publication, being that of a farmer from Lincolnshire, who has just consulted me.

He complains, June 10, 1822, of a numbness over the left foot, extending to the instep, and a little way up the leg, with some inability to raise it from the ground with his usual strength, which makes him halt in his gait : nothing whatever is to be seen on inspection ; it came on gradually about three weeks ago ; he has no pain in it, except when he is attacked with the cramp, which affects the calf of the leg and abductor muscle of the great toe, drawing it outwards with force and pain. The other leg became affected about a week ago, but in a different way. It became extremely painful round the inner ankle and up the leg : upon examination an erysipelatous inflammation was observed spreading from the calf of the leg to the ankle, which was œdematously swelled and extremely tender to the touch, and he complained of much pain at the point of the heel upon pressure ; his pulse was full and strong (but he had walked to my house on a very hot day), his appetite was extremely good, morbidly keen, he had no particular thirst, is subject to palpitation at times ; he has a daily evacuation by the bowels, and, by account, the fæces are black

and very offensive ; the urine is at times loaded ; the complexion not sallow, and the eyes quite clear. From the closest inquiry there did not appear the smallest affection of the brain, not the slightest uneasiness of any kind there. He candidly acknowledged that he was a hard liver, indulging with freedom in intoxicating liquors of all kinds, and until this complaint came upon him, he had enjoyed uninterrupted good health from his boyish days. This is a well-marked case of diseased secretions in the chylopoietic viscera, producing a morbid local impression of two different kinds, through the medium of the nerves, without affecting the sensorium at first ; but it is not improbable, if the secretions be not brought to a healthy state in time sufficient to correct their effect upon the lower extremities, that the brain will become affected.

I saw this patient again to-day, June 19 ; the inflammation, pain, and swelling of the right leg have entirely disappeared, no trace of disease is to be found in it : he walks less lame with the other leg, but the numbness still continues, though diminished : the evacuations have acquired their healthy colour.

The means used were gr. v. pil. hydrarg. every night, with some opening medicine every other morning, consisting of infus. sennæ and magnes. sulph. ; and a total abstinence from fermented liquors and spirits was enjoined, with a restriction in the quality and quantity of his solid food. No case can more clearly mark the effect of the chylopoietic secretions upon local diseases in a distant part; for no local remedies whatsoever were applied. The patient is in his thirty-fifth year.

It is not a little curious that disease shall seem to commence in the sentient extremities of nerves, producing a morbid effect upon the sensorium, which effect seems to become a cause of increased disease in those extremities. Some cases of paraplegia, which creep gradually upon the constitution, are of this nature*. Three cases of the kind are in my mind's eye at this moment, all seen by Dr. Baillie: two by him conjointly with me, the third by Dr. Baillie, Sir H. Halford, and myself. Two of the patients are dead, one by

* See Dr. Baillie's paper on Paraplegia, in the 6th vol. of the Transactions of the College, p. 16.

apoplexy, the other died in Italy I know not exactly in what way, and the third has also had an apoplectic attack, though the case has not as yet terminated fatally. The brain was not originally much affected, and only became so as the palsy of the lower limbs increased. It is not improbable that some irritation of the sensorium affects the sentient extremities of the nerves, which, by reflex action, increases the mischief in the brain, in a way not yet understood, but somewhat after the manner that irritation of the sentient extremities of the nerves of the digestive organs injures the brain of young people, producing effusion of fluid there, and ultimately palsy*.

It is a curious coincidence, that on going to the College of Physicians (this day, May 14th, 1822), I was informed that our Bedell had been ill for some time; I learnt, upon seeing him, that about three weeks ago, when endeavouring to rise from his chair one afternoon, he was unable to do so from a powerless state of his lower

* See the author's pamphlet on "Water in the Brain," with the appendix, published by Burgess and Hill, Windmill Street.

limbs, attended with much pain in them in attempting to move. Cupping had been directed for a giddiness and uneasiness in the head. He had suffered from tic douloureux in the face for fourteen years, and which is still extremely painful: he is seventy-seven; his pulse hurried, not small and feeble, but intermitting considerably. Since the affection of the lower limbs, which are swelled, he has complained of a very severe pain attacking a spot between the inner ankle of the left foot and the instep, several times a day, similar to the tic in the face: his appetite is good, and he has no thirst. This case so clearly illustrates the observations I have just made, that I could not avoid mentioning it; he will sink under it.

The head, therefore, should be one object of consideration, in investigating the causes of neuralgia: and here again our field of view extends itself, for the morbid state of the brain producing a painful condition of the sentient extremities of the nerves, may itself be, and often is, the effect of another cause, a continual irritation of the digestive organs. The species of neuralgia arising in this way is the effect then of a continued action of morbid

causes, and the mere loosening one link in the chain can have no permanent beneficial result : in such a case the abstraction of blood from the head, to relieve irritation there, can produce no lasting good, unless we look also to the primary link in the chain, a faulty condition of the liver, an imperfect action in the stomach or duodenum, or an irregularity in the intestinal actions. I have in many cases witnessed a very delicate morbid sensibility of the villous coat of the digestive organs in some people, producing uneasy sensations in the head, with a soreness of the sentient extremities of the nerves of the forehead and temples upon taking certain kinds of food, without in the least disturbing the pulse. In the case of Mrs. Y. I had at first some apprehensions respecting the head, particularly when I reflected that about four years ago the patient was saved from a fit of apoplexy by the timely loss of twenty-two ounces of blood, partly by cupping, and partly from the arm.

We must also not forget that the sentient extremities of the nerves have an action independent of the sensorium, as the small arteries have independent of the heart, but

neither the one nor the other can be long greatly irritated without the brain or the heart being affected.

Having thus ascertained, as well as we are able, and as well as the intricacy of the subject will admit, the source of the irritation, the *fons et origo mali*, the remedies at hand will readily supply us with means adapted to this consideration of the subject; and if the complaint has not been one of long continuance, we shall in many cases be able to produce a fortunate result: but it will be necessary to ascertain the precise morbid condition of the organ which may be the original source of irritation, and this is unquestionably a task of considerable difficulty; and can be better performed by the observation of a discerning physician, than by any particulars which can be laid down in writing, from a deficiency of language perhaps to express the ideas of those different morbid states, of which a more complete knowledge is yet wanting.

Cases have occurred in the course of my practice which will illustrate these different states, with the varied means consequently adopted.

A gentleman, who last year died near eighty years of age, about twenty years ago was afflicted with this painful affection of the face, on which the ordinary remedies made no impression; the solution of arsenic, taken for about three weeks, relieved him from his distress. Here some peculiar condition of the nerves of the stomach resisted the usual stimuli; for there, it appeared to me, the original irritation resided.

Within the last eight years, four other cases of a painful affection of the face, with excruciating distress, have come within the sphere of my practice,—two males, and two females; and all treated differently, according to what appeared to me to be the causes. The one male was a gentleman, J. H. D. Esq. of James Street, Westminster, whose distress clearly arose from a debilitated and torpid state of the stomach, attended with a small, quick, irritable, intermitting pulse, excruciating pain in the face on the right side, coming on in paroxysms, with a ferrety slightly inflamed eye, a profusion of tears, considerable soreness about the infra-orbitary foramen, greatly increased on pressure. He had had an attack of this kind many years

ago, before I knew him, of a very protracted duration, as he was at that time treated with salines, on the antiphlogistic plan. His second attack was about five years ago, when the exhibition of an emetic, as a preliminary step, followed up by the bark in potent doses every four hours, in the form of decoction, tincture, and extract, released him from his very distressing situation. Two years after, he had another attack of a similar but milder kind, which yielded in three days to the same means. The bark was given in powerful doses, the stimulus of it being required, as he had accustomed his stomach to much wine. Another case, of precisely a similar description, was that of a female, a cook in the service of Mrs. Goldsmid. It yielded to exactly similar means, except that the bark was not taken so often, nor in such large doses, the stomach not requiring it. These two patients were under forty years of age. The third case was a male in his fiftieth year, and as the history of it, with its treatment, illustrates the chain of morbid actions, affecting ultimately the sentient extremities of the nerves, the origin being apparently referable to the brain, I shall give it more at length.

Mr. G. a respectable farmer in the neighbourhood of Guildford, consulted me on the 27th of December 1817, for a vertiginous affection of the head, which had been troublesome to him for some time, and was occasionally so urgent as in appearance to threaten an apoplectic attack. He was a man of robust make, but short; of a succulent and apparently full habit, florid complexion, and active in his pursuits in life; his pulse did not indicate inflammatory arterial activity; his appetite was good, his thirst not remarkable; his bowels were not sufficiently active in their movements; and his urine, in moderate quantity, was charged with lithic acid and the phosphats; with these symptoms he complained of a sinking sensation at times during the day, which he referred to the region of the stomach. His food consisted of the substantial kind to which farmers are accustomed, with beer for beverage; he was not addicted to spirits, but occasionally took some with moderation. There was no fullness or uneasiness from pressure on the liver, the skin was perfectly free from any bilious tinge, and there was nothing of the sallow hue so conspicuous in visceral mischief; the

origin of the irritation was clearly referable to the brain *. He was directed to lose ten ounces of blood from the nape of the neck by cupping; a draught composed of

R. Infus. Sennæ fʒj.
Tinct. Jalap. fʒj.
Magnesiæ Sulphat. ʒfs.
Aquæ fʒv.

was ordered to be taken twice a week in the morning, with pil. hydrarg. gr. v. every night at bed-time, and a corresponding restriction in his stimulant and substantial food was enjoined. I saw him again on the 6th of January following, when I learnt that the giddiness had not been so urgent, but was still troublesome, with the faint sensation at his stomach; he was ordered

R. Infusi Sennæ,
Mist. Camphoræ, ana. fʒfs.
Spt. Æth. Sulph. Comp. m. xx.
Aquæ fʒiij. M.

as a draught twice a day.

* This patient's symptoms bear great similarity to the disease Sauvages denominates *tic douloureux de l'œil*, under the article *Nystagmus*. *Nosolog. Method.* vol. i. p. 548.

On the 3d of March, the giddiness was still exceedingly troublesome, when he was again cupped in the neck, to the extent of eight ounces, and the following draught ordered every other morning:

R. Infusi Sennæ fʒj.

Misturæ Camphoræ fʒss.

Tinct. Jalap. fʒss. M.

and a more restricted diet as to substantial food was enforced.

From this time until December of the same year I heard occasionally that he was better: he had received general directions from time to time to preserve his bowels in a soluble state, to observe moderation in food, and to abstain from spirits fermented and distilled. On the 16th of December, however, of this year, 1818, he came to town, and the following was his condition at the time. He complained of excruciating pain over the right cheek, particularly severe immediately under the eye, which discharged a considerable quantity of water, and was much inflamed, but not so much as the left. The sinking and fainting feel at his stomach was considerable, with a low but not quick pulse, and certainly it did not indicate that con-

dition of the circulation which usually calls for venæsection. He had in a great measure, but not entirely, lost his giddiness; and the pain of the face had been before at times troublesome, but not to such an extent as to induce him to mention it to me, the sensation of giddiness most arresting his attention; but now the circumstances were reversed. I speculate no further than saying that I believed some morbid condition at the origin of the nerves thus painfully affected their extremities, and in this way I accounted for the excruciating tic in the face, and for the sensation of sinking in the digestive organs; my object, therefore, was to alter this morbid condition of the brain; I accordingly directed as follows:

R. Opii puri Pulv. gr. vj.

Hydrarg. Submuriat. ℥j.

Pulv. Rad. Ipecac. gr. iij.

Confect. Rosæ q. s.

To be made into six pills, one to be taken every night at bed-time.

R. Misturæ Camphoræ fʒvj.

Tinct. Valerian. fʒvj. M.

Three large spoonful to be taken every morning and at noon, to obviate the un-

pleasant sinking feel. Blisters were applied behind each ear, and directed to be kept open by means of the savin ointment; the bowels were not to be purged, but to be kept moderately open when necessary; the strictest antiphlogistic regimen was enjoined, and he was confined to a warm room completely darkened. He returned home the same day to his residence in the neighbourhood of Guildford with the above directions, and the following reports came from his wife, who was the medium of communication between us.

Report, December 29, 1818.

“ Plan regularly pursued: mouth not sore from the mercury; the blistered parts notwithstanding the use of the Ung. Sabinæ, have healed. His left eye, which had been by far the worst, is much better; but his right eye has been extremely painful, and I think worse than his left ever was; for these last ten days the white of it appears like a mass of blood, and he experienced a considerable degree of difficulty in opening it, which when he did the water ran down his cheek in a stream, and it appeared to him as if the blood had nearly closed the sight. He

has not experienced such violent pain in his head, but it has been more confined over his eyes and down his cheek-bone ; neither has he felt the sickness nor fainting which he had previous to seeing you, and he has regularly had one or two motions every day."

Appr. hirudines iij tempori dextro, et ij tempori sinistro.

R. Opii puri Pulv. gr. viij.

Hydrarg. Submuriat. gr. xxx.

Confect. Rosæ q. s.

To be made into six pills, one every night at bed-time.

Repr. emplastra Lyttæ pone utrasque aures, et ft. ulcera perpetua ope ung. sequentis.

R. Unguent. Lyttæ ʒj.

Antimon. Tart. ʒss. M.

Continue the mixture if the fainting feel comes on.

Report, Jan. 4, 1819.

" The mouth has become sore ; the blisters have discharged prodigiously by the help of the ointment. His eye has been much better and freer from blood, and has not watered, but there still remains a foul bloody shade over the white part of it ; I could not

apply the leeches till yesterday morning; the parts bled freely after they had dropped off. I have the pleasure to say he has not experienced those severe pains in his head for several days, but he feels a great weakness, particularly in his loins and knees; he has bathed his feet and legs twice, and has of course taken the pills and mixture agreeable to your direction." The ointment was ordered to be lowered with hog's lard, on account of its being too active, and as the mercurial action was to be maintained, the pills were directed to be taken according to the state of the mouth.

Report, Jan. 13, 1819.

" I have the pleasure to inform you Mr. Gould is considerably better; he has not felt the pains in his head in any degree violent for several days, and his eyes are much freer from blood, though they are not quite clear: as he spit but very little, he has continued taking the pills, agreeably to your directions: his mouth is now extremely sore; the discharge behind his ears continues to be considerable, and his evacuations have in general been regular, sometimes once, and sometimes twice a day." Omit all medicines except the

mixture if he should feel faint, and take a little Epsom salts if the bowels should require them. Continue the discharge behind the ears; and if a diarrhœa should come on, give from ten to twenty drops of laudanum at night.

Jan. 29, 1819. I saw Mr. G. to-day, perfectly well.

In March 1820, I wrote to make inquiry after this patient: the answer was, that his health continued nearly the same as when I had heard of him last; but that in September preceding he had had a dangerous fall from a corn-stack, from which he received much injury. In the following January his complaint returned upon him in a similar way as formerly, but less severely, and that his memory had become much impaired. It is not at all improbable that the renewal of his disease was produced by the fall.

The fourth case was a female near sixty, who sold poultry at Tunbridge Wells. She was so irregular in her habits, especially in drinking spirits, that I could procure no connected history of her case.

She suffered excruciating pain by frequent paroxysms in the face, connected with a disturbed state of the sensorium. She was relieved by Belladonna, but as I could not trust her in abstaining from what might be hurtful, or in taking regularly what might be useful, I lost all interest in the case, and ceased to pay her any attention.

As another instance of the powerful and salutary effect of the Subcarbonas Ferri on the nerves, I cannot avoid mentioning the following case of great pain, which has been so happily relieved under its use, after the various opinions given, and consequently varied practice adopted, by some professional gentlemen of high eminence in London.

Miss ——, æt. twenty-eight, of the King's Road, consulted me on the 7th of May 1822, and the following is a description of the symptoms. She complains of considerable pain, sometimes acute, sometimes dull and aching, on a spot in the back, about the size of half-a-crown, just at the union of the os sacrum with the last lumbar vertebra ; the spot is very tender to the touch ; no irregu-

larity in structure is discoverable after accurately examining the whole spine. She has pain also along the outside of each thigh, in the course of the sciatic nerves, but these are not pained on pressure. She complains of numbness at times in her legs, and can only walk a very short distance, being unable to proceed from an aching, weary, and powerless feel in the limbs. She is regular, but is much troubled with leucorrhœa, and has the feeling of great general debility; the pulse is feeble and slow; a faint sinking at the stomach is complained of, with torbid bowels, always requiring physic; the appetite is however not bad, and there is no particular thirst. She has been affected in this way for several years. She has taken a variety of medicines, and has undergone the discipline of cupping and repeated blistering in the back, from the opinion that the spine was diseased; and she also has had powerful astringent injections thrown into the vagina, under the impression of another practitioner, that a morbid condition of the uterus was the cause of her sufferings. So acute was the pain she described in her back and down the thighs, with the debility of her limbs, that when she first spoke to me, which was

on the 11th of April, I had apprehensions that the spine might be diseased, and I threw out some hints on the propriety of the insertion of issues ; but upon examining the spine, which I did on the 7th of May, I determined they were not at all necessary: I then prescribed for her, gr. x. Ferri Subcarb. to be taken twice a day, swallowing after it a draught of Infus. Caryophyl. with Spt. Ammoniaë Aromat. She also had some pills of Extract. Colocynth. Comp. to regulate the bowels. She called upon me, June 3d, and to my great satisfaction, and with no little joy on her own part, told me, that she had entirely lost the pain of the back and down the thighs, and now was able to walk with comfort: and this day, June 26th, I am informed, in a note from herself, that “ she continues perfectly free from the pain, and is able to walk five or six miles; whereas, previous to taking the steel powders, she could not walk one without being greatly fatigued and receiving assistance.” She had regularly continued the subcarbonat, adding, that that was the only prescription which had ever been of any service to her.

There has been no necessity for having recourse to the opening pills, as the bowels became perfectly regular: the leucorrhœa continues.

There is another species of tic douloureux which at times is totally incurable, at others, however, cured by a process of nature: the circumstance to which I allude, is where the irritated nerve passes over a diseased bone, the rough prominences of which produce violent pain in it. This condition is produced either by some accident injuring the bone, or by some constitutional cause producing disease in it: until the bone be restored to a sound state, it is clear that the tic cannot be cured. A noble Duke and a noble Marquis laboured under this species of tic; the former got rid of his disease by a piece of bone exfoliating from the cheek; and the latter, distinguished by his valour on the battle of Waterloo, was freed from his disease in the same way. Any irritating substance whatever would have the same effect. A urinary calculus passing along the ureter, has produced violent pain in the lower limb, resisting every remedy for months, and confining the patient to his room for that period,

till unexpectedly relieved by the passage of the calculus from the urethra *. It becomes, therefore, perfectly evident, that in all cases of neuralgia the symptoms should be severely scrutinized, in order to apply the remedies which the cause would suggest. This subject opens an extensive field for observation and inquiry, and it is not unlikely that the investigation of this complaint may lead to a better acquaintance with the nature and functions of the nervous system.

It is with the nerves, as with the other parts of the system, whenever an irritating cause has continued for some time, the disease produced will very often remain, although the cause be removed, from habit, or from diseased structure being induced. When, therefore, internal remedies have failed to produce the desired effect, recourse has been had to the division of the affected nerve, or to excision of a portion of it; and from the present perfect relief obtained, this surgical aid was hailed as a fortunate discovery, suggested, as it certainly was, by great ingenuity. But this mode has not

* Mr. J. Bailey on Belladonna, p. 26.

ultimately and uniformly answered the expectations cherished of it; for it has been found, that by a reunion of the nerves the disease returns with all its original intensity, the communication being thus restored between their sentient extremities and the brain. In some cases a plaster of Belladonna, as a local application, along the course of the nerve, has afforded relief, as Mr. Brodie assures me. Direct inflammation may also take place in the investing coat, where cold local applications, with the strict antiphlogistic plan, and evacnants, have speedily given relief. Mr. Thomas, of Leicester Place, tells me that he has met with several cases of this kind; and similar instances are related by Mr. Swan in his useful publication on morbid local affections of the nerves. When the neuralgia has been of very long standing, and the cause has appeared to cease, either spontaneously, or from medicine, a strong impression made by some powerful local application has had a good effect. A very remarkable case of this kind is published by Mr. Pearson of Golden Square, in *Med. Chirurg. Trans.* vol. viii. p. 252. In others, as Mr. Pearson informs me, the same application has altogether failed,

from the original cause, as I suspect, not having been removed. In many instances the division or excision of a portion of the nerve has failed to be of service from the circumstance of the inosculating nervous filaments carrying the nervous influence to the sentient extremities from above the divided part, the irritating cause being in a distant organ. If, therefore, the pain is diffused to many fibrils of the nerves, this division of the nerve will be of no avail whatever; and in some parts of the body it is impossible to perform it, as this complaint may occur in any nerve of the system, and in some cases it would seem that this operation upon the nerve has not only been of no service, but has been injurious.

THE END.

